To: DIRECTORS, DEPUTY DIRECTORS, AND BUREAU CHIEFS

From: Dianna L. Taylor

Bureau Chief of Personnel Management

Subject: Technical Vacancy/*RECRUITMENT*

Date: February 17, 2016

Attached are the Position Summary Sheet and Position Description for the vacant technical position listed below. Please post this vacancy announcement February 18, 2016 in the designated areas.

The deadline for applicants to submit their names for consideration is **4:30 p.m.** on **Wednesday, March 2, 2016**. Applicants will not be accepted after that time and date.

NOTE: Official college transcripts must be included with application. Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application.

All applicants will receive a position description for the position they are applying for. If you have any questions, please contact Denise Hamilton or Jennifer Sunderland at 217/782-5594.

CET (5 pos) Research Engineer Trainee

Bureau of Materials and Physical Research

Highways Springfield

Attachments 40797

Technical Applications (PM 1080) <u>must be received</u> by the Bureau of Personnel Management, Room 113, 2300 South Dirksen Parkway, Springfield, IL 62764 (Fax# 217/557-3134) by **Wednesday, March 2, 2016**, 4:30 p.m. Please include address, daytime phone and position for which applying if not already listed on application. Applicants will be notified in writing to schedule interviews. **NOTE: Official college transcripts must be included with application.** Applicants possessing an Engineer Intern License must also include a copy with application. Applicants not submitting these documents by the posting deadline will not be considered for employment. Please include IPR number on the application.



Position Summary Sheet

An Equal Opportunity Employer

Classification: Civil Engineer Trainee (5 positions)/RECRUITMENT Salary Range: \$4,275 - \$4,655

Position Title: Research Engineer Trainee Union Position: X Yes No

Position Number: PW110-23-50-703-23-01 IPR#: 40797

Office/Central Bureau/District/Work Address:

Division of Highways/Bureau of Materials & Physical Research, 126 East Ash Street, Springfield, IL

Description Of Duties:

This position is accountable for assisting with surveys, investigations, data collection and analysis, testing, and inspection of pavements and various materials utilized in transportation infrastructure.

Special Qualifications:

The following criteria is required:

- Bachelor of Science in Civil Engineering from an ABET accredited university prior to date of employment or must be a Licensed Engineer Intern in the State of Illinois (includes those expecting to graduate in Spring 2016)
- Minimum of one (1) semester of Pavement Design Theory Education
- Minimum 2.5 cumulative GPA in engineering related courses (If GPA is between a 2.0-2.5, candidate must have passed Fundamentals of Engineering Exam.)
- Official college transcripts must be included with application. (Official transcripts indicating graduation date for Spring 2016 graduates must be provided at time of hire.)
- Valid driver's license
- Statewide and occasional out-of-state travel

The following criteria is desired:

- Experience in developing pavement policy, highway specifications, design procedures, pavement management and/or modeling
- Experience with material testing
- Ability to communicate findings through oral and written summaries

Shift/Remarks:

8:00 am - 4:30 pm / Monday - Friday

THIS IS AN ENTRY-LEVEL POSITION THAT IS PART OF A ROTATION PROGRAM

ILLINOIS DEPARTMENT OF TRANSPORTATION POSITION DESCRIPTION

DATE: January 15, 2016 **POSITION:** Research Engineer Trainee

APPROVED BY: OFFICE/DIVISION: Division of Highways/Bureau of

Justan Mann

Materials & Physical Research

CODE: PW110-23-50-703-23-01 REPORTS TO: Project Studies Engineer

Position Purpose

This position is accountable for assisting with surveys, investigations, data collection and analysis, testing, and inspection of pavements and various materials utilized in transportation infrastructure.

Dimensions

Programs: All awarded construction contracts

Nature and Scope

This position reports to the Technical and Project Studies Engineer. As part of a rotation program, the incumbent may be transferred between various units with the bureau.

The greatest challenge to this position is in assisting with the evaluation of materials used in transportation infrastructure. A typical problem for the incumbent would be to conduct a study to determine how material properties contributed to an unexpected failure and to prepare a recommended solution to the problem.

This position assists with surveys, investigations, data collection and analysis, testing, and inspection of pavements and various materials utilized in transportation infrastructure. These materials include hot-mix asphalt (HMA), portland cement concrete (PCC), metals and miscellaneous products, or other materials as required.

This position is responsible for; 1) performing special and routine materials tests; 2) analyzing and correlating jobsite data with laboratory developed data; 3) testing and evaluating in-place materials which exhibit performance problems; 4) inspecting various materials producers; 5) assisting in the development and updating of materials publications and specifications; 6) assisting in the development of reports for special pavement investigations; 7) collecting, and/or analyzing pavement data; 8) assisting with various pavement research and 9) assisting with evaluations of products proposed for use in transportation infrastructure.

The incumbent will travel throughout the state to obtain field data and assist with problem solving, perform inspections, monitor studies, collect data, and attending conferences and meetings. S/He may be required to travel out-of-state to participate in workshops and seminars.

The incumbent's primary contacts are within the bureau. However, the incumbent may have occasional contact outside the bureau with material producers, universities, and other department bureaus and districts.

The effectiveness of this position is measured by the success in satisfactorily completing assigned work by scheduled target dates; by the acceptability of collected, analyzed and summarized data; and by the effective communication of findings through oral and written summaries.

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Principal Accountabilities

- 1. Conducts field and laboratory tests, evaluates test results, and correlates test results to ensure the applicability of laboratory developed results to field situations.
- 2. Performs inspections of materials producer's products.
- 3. Assists in the development and updating of materials publications and specifications.
- 4. Assists in the development of reports for special pavement investigations and review of research reports.
- 5. Collects, analyzes, and summarizes pavement performance information.
- 6. Assists with the evaluation of products proposed for use in transportation infrastructure.
- 7. Prepares memorandums and reports of findings.
- 8. Travels on an as-needed basis to perform the duties of this position.
- 9. Performs duties in compliance with departmental safety rules. Performs all duties in a manner conducive to the fair and equitable treatment of all employees.
- 10. Performs other duties as required or assigned.